

I CLAIM:

1. A communication system comprising:

a driving circuit comprising a driver with controlled output voltage or current
5 levels; and

a receiving circuit comprising a main receiver having at least one channel for
receiving main signal, wherein the receiving circuit further provides a feedback to the
driver to adjust the parameters of the driver to the receiver's characteristics.

2. The communication system according to claim 1, wherein the feedback
10 comprises a circuit capable of reproducing one or more characteristics of the main
receiver.

3. The communication system according to claim 2, wherein the reproducing
circuit comprises an auxiliary receiver.

4. The communication system according to claim 1, wherein the receiver's
15 characteristics include the hysteresis.

5. The communication system according to claim 1, wherein the receiver's
characteristics include the reference voltage.

6. The communication system according to claim 2, wherein the reproducing
circuit is used to obtain information on the main receiver.

7. The communication system according to claim 2, wherein the reproducing
20 circuit includes a ring oscillator circuit, the signal from the ring oscillator being used to
adjust the parameters of the driver to the receiver's characteristics.

8. The communication system according to claim 3, wherein the auxiliary
receiver is made on the same integrated circuit or an integrated circuit identical to the
25 integrated circuit used to make the main receiver.

9. The communication system according to claim 5, wherein the auxiliary
receiver is used to obtain the terminating voltage and reference voltage.

10. A communication system comprising:

a driving circuit comprising a driver with controlled output voltage or current levels, and

a receiving circuit comprising a main receiver having at least one channel for receiving a main signal, wherein

5 the driving circuit comprises an auxiliary circuit representing characteristics of the main receiver.

11. The communication system according to claim 10, wherein the auxiliary circuit comprises a copy of the main receiver.

10 12. The communication system according to claim 10, wherein the auxiliary circuit is made on an integrated circuit identical to the integrated circuit used to make the main receiver.

13. The communication system according to claim 10, wherein the auxiliary circuit is used to obtain information on the main receiver.

15 14. The communication system according to claim 13, wherein the information on the main receiver includes, but is not limited to the terminating voltage and reference voltage.

16 15. The communication system according to claim 10, wherein a signal generated by said auxiliary circuit is used to adjust the parameters of the driver to the receiver's characteristics.

20 16. In a communication system, a receiver generating a signal representing parameters bearing information on the maximum and minimum levels that are needed to cause a signal to be received as a logical one and as a logical zero whereby this signal influences the signal swing of the transmitter.

17. The receiver according to claim 16, wherein the levels are voltage levels.

25 18. The receiver according to claim 16, wherein the levels are current levels in current mode devices.

19. The receiver according to claim 16, wherein the signal is digital.

20. The receiver according to claim 16, wherein the signal is a differential analogue signal.

21. A method of low swing communication comprising the steps of:

providing voltage or current levels at the driver for driving a communication circuit;

generating a signal at the receiver indicative of parameters bearing information on the said voltage or current levels to cause a signal to be received as a logical one and as a logical zero;

wherein the output signal swing of the driver is adjusted using the signal generated by the receiver.

22. A method according to claim 21, wherein the output swing of the driver is adjusted to the receiver's hysteresis.

23. A method according to claim 21, wherein the terminating voltage is adjusted to the receiver's transition voltage.

24. A method according to claim 21, further comprising the use of another receiver to adjust the driver with respect to hysteresis, reference voltage, or a combination of both these features.

25. A method of low swing communicating comprising the steps of:

providing voltage or current levels at the driver for driving a communication circuit;

generating a signal at the driver representing parameters bearing information on the said voltage or current levels to cause a signal to be received as a logical one and as a logical zero;

wherein the output signal swing of the driver is adjusted using the signal bearing information on the said voltage or current levels.

26. A method according to claim 25, wherein the output swing of the driver is adjusted to the receiver's hysteresis.

27. A method according to claim 25, further comprising the use of another receiver located at the driver to adjust the driver with respect to hysteresis, reference voltage, or a combination of both these features.

28. A method of adjustment of the output signal of a driver, comprising the steps of:

providing voltage or current levels at the driver for driving a communication circuit;

- 5 generating a signal at the receiver indicative of parameters bearing information on the said voltage or current levels to cause a signal to be received as a logical one and as a logical zero;

10 wherein the output signal swing of the driver is adjusted using the signal generated by the receiver or the signal bearing information on the said voltage or current levels.